# I. <u>PACNAVFACENGCOM DESIGN REVIEW CHECKLIST and</u> PACNAVFACENGCOM REDICHECK COORDINATION REVIEW CHECKLIST

NOTE: THE DESIGN REVIEW AND REDICHECK COORDINATION REVIEW CHECKLISTS THAT FOLLOW ARE TO BE USED ONLY AS A GUIDE. THERE MAY BE OTHER ITEMS NOT LISTED THAT NEED TO BE CHECKED.

#### **Revisions:**

First sheet under the Review Item heading "General":

- Changed "Contracts Department (Code 02)" to "Acquisition Department (ACQ)".
- Changed "Code 505" to "Construction 05".

Under Specifications, "General," a couple of minor revisions.

Proje	ect Title:			
	ewer's 60% Date: ature: 100% Date:			
Gene	Review Item	<u>Yes</u>	* <u>No</u>	<u>N/A</u>
Gene	<u> </u>	1	Т	T
1.	<b>FACD requirements</b> have been incorporated or addressed as deviations and amicably resolved.			
2.	Project within scope and budget, and design satisfies the functional and operational requirements of the proposed facility.			
3.	Design conforms to NAVFAC and/or AF criteria.			
4.	Drawings conform to design analysis.			
5.	Latest <b>lessons learned</b> reviewed and pertinent items incorporated. (Available at <a href="http://www.navfac.navy.mil">http://www.navfac.navy.mil</a> .)			
6.	<b>Bid items</b> clearly identified/coordinated with PDE and activity. Written description of each bid item shown on title sheet included in the project, starting with Bid Item 2. Also on each of the sheets that has a bid item identified, a written description of the work associated with the bid item shown on that sheet is included.			
7.	Procedures for <b>scheduling utility outages and roadway closures</b> are acceptable to PWC and activity.			
8.	<b>Proprietary materials/equipment</b> included in design have been approved by the Acquisition Department (ACQ).			
9.	<b>CQC requirements</b> have been discussed with ROICC and PACDIV Construction 05.			
10.	Renovation work coordinated with occupants.			
11.	Requirements for repair of existing <b>elevators</b> .			
12.	<b>Phasing</b> identified/coordinated with PDE and activity.			
13.	Signed certification provided with final submittal that project does <b>not</b> include specifications or standards which require the use of <b>Class 1 Ozone Depleting Substances</b> .			
14.	Hazardous materials, debris disposal, salvage, etc. addressed.			

Proje	ect Title:				
	viewer's 60% Date: nature: 100% Date:				
	Review Item		<u>Yes</u>	* <u>No</u>	N/A
<u>Gene</u>	<u>ral</u>				
15.	Latest <b>environmental regulations</b> are referenced, especially for <b>asbestos and lead removal</b> .				
16.	Limits of asbestos/lead paint removal identified on drawings. Amort of asbestos removal identified in Section 02220, "Site Demolition".	unts			
17.	All permits applied for/addressed (trenching, disposal large scale grading/storm drain water run-off, clean air, dredging, PWC sew connection, etc.)	er			
18.	All <b>permits</b> required and their approval process time has been address	sed.			
19.	Maintenance review checklist reviewed and incorporated.				
20.	Blind vending facilities coordinated with user.				
21.	Requirements of <b>handicapped</b> (ADA/UFAS) complied with including completion of 04 signature form.	g			
22.	Wall locker requirements coordinated with user and specifications.				
23.	<b>Government property</b> is completely and accurately specified and/or identified.				

Proje	ect Title:				
	ewer's 60% Date ature: 100% Date				
	Review Item		Yes	* <u>No</u>	N/A
<u>Arch</u>	<u>itectural</u>				
1.	Floor plans have a modular grid or structural column grid with number and letter coordinates where applicable.	ſ			
2.	Floor plans have square footage totals identified conforming to project documentation breakdown and NAVFAC MIL-HDBKs/Design Manual				
3.	Floor heights clearly indicated at changes in floor elevations.				
4.	Recessed slabs for floor finishes clearly indicated.				
5.	<b>Special finishes</b> such as ceramic tile, seamless epoxy flooring, etc. required. (Terrazzo is subject to deterioration near toilets and urinals in public toilets.)	1			
6.	<b>Floor drains</b> provided in mechanical rooms, garages, laundry rooms, a trash rooms and are floors sloped to these drains.	nd			
7.	Construction joints and adequate slopes for drainage are provided for all paved terraces, patios, decks, and sidewalks.	or			
8.	Overflow curbs provided in laundry.				
9.	<b>Floor recession dimensions and details</b> provided for tile, masonry, carpet treatment, and <b>floor height dimensions</b> are shown for each leve (Slab, subfloor, and finish floor.)	1.			
10.	Adequate provisions are provided at the perimeter and butt perimeter as butt conditions of wood, ceramic tile and quarry tile <b>flooring</b> to allow f expansion and contraction of the flooring material.				
11.	Non-slip surfaces are provided at exterior entries, landings, and steps.				
12.	<b>Roof drainage</b> details are adequate. Roof drains are not located too close to exterior parapets or structural beams. Existing roof drains are not reused.				
13.	Adequate provisions are provided for <b>roof mounted equipment</b> , i.e., flashing, duckboards, service walkways around HVAC units, etc.				
14.	Expansion joints are used at appropriate inervals and that they are sufficiently detailed.				

\*Note: Provide explanation for "No" responses.

Proje	ect Title:			
	ewer's 60% Date: ature: 100% Date:			
	Review Item	Yes	* <u>No</u>	<u>N/A</u>
<u>Arch</u>	<u>itectural</u>			
15.	Roofing system appropriate.			
16.	<b>Flashing</b> provided at appropriate locations and they are adequately detailed.			
17.	Appropriate <b>roof gutter</b> materials, sizes, slopes and direction of slopes, screens, expansion joints are provided.			
18.	<b>Curbs and parapets</b> have flashing, cant strips, crickets, cap flashing and are they appropriately detailed.			
19.	Waterproofing system appropriate and clearly detailed.			
20.	Special soundproofing and weatherstripping clearly identified.			
21.	<b>Guardrails</b> are provided. (Full height glass walls at entrances are particularly vulnerable also on flat roof perimeters, light wells, atriums, courtyards, and open shafts.)			
22.	Verify all <b>fire rated walls</b> .			
23.	<b>Large doors</b> or a <b>removable wall section</b> provided for <b>mechanical rooms</b> .			
24.	<b>Door openings to toilet or other private facilities</b> are hinged to block direct view into room, otherwise privacy partitions should be provided.			
25.	Acoustical treatment required for mechanical rooms and other high noise areas.			
26.	Soundproofing/isolation provided around noisy rooms/areas and equipment.			
27.	Stairways exits comply with applicable codes and regulations.			
28.	Design provides for <b>handicapped</b> persons to utilize facility and restrooms.			

Project Title	2:				
Reviewer's Signature:	60% 100%	Date:			
Review	<u>Item</u>		<u>Yes</u>	* <u>No</u>	N/A
Architectural					
	hts for interior stairwells are protected with wire mesh screelow the skylight.	eens			
30. <b>Weep</b> l	holes are provided through brick.				
	all <b>dimensions</b> critical to <b>cabinet fit</b> and check to see if fine dimensions are shown.	ished			
	asions to finished surfaces, rough surfaces, or rough franced, use unique symbols.	ning.			
33 Coord	ination of building design and collateral equipment				

Proje	ect Title:			
	ewer's 60% Date:			
	Review Item	Yes	* <u>No</u>	<u>N/A</u>
Struc	<u>etural</u>			
1.	<b>Special design requirements</b> incorporated in the design, i.e. weight handling equipment requirements, etc.			
2.	Weight handling equipment (bridge crane, etc.) have sufficient capacity and clearances, such as for servicing the engine generator in power plants.			
3.	<b>Design calculations</b> spot checked to insure the correct design procedure have been followed.	s		
4.	Special considerations described in the basis of design such as <b>special inspection</b> are identified in the drawings and specifications.			
5.	<b>Design data</b> and <b>assumptions</b> are provided in the basis of design and are shown on the drawings.	e		
6.	Monorail and crane rail sway braces shown where required.			
7.	Impact of <b>vibration producing equipment, elevators</b> , etc. considered. <b>Anchorage of structural elements</b> to shear walls, roof, and/or floor diaphragms, etc. are properly detailed.			
8.	The correct <b>seismic zone</b> , <b>wind load</b> , <b>and snow load</b> have been used.			
9.	The proper <b>live loads</b> have been utilized in the design.			
10.	<b>Lateral load resistance</b> system is identified and implemented into the design.			
11.	<b>Load path</b> for lateral load resistance from roof to foundation is addressed in the basis of design and shown in the calculations.			
12.	<b>Unusual floor loads</b> such as files, safes, or industrial equipment have been considered.			
13.	<b>Structural frame connections</b> meet minimum requirements, i.e. minimum two bolts to each member for steel construction.			
14.	<b>Foundation pile requirements</b> show pile tip elevations and special pile driving requirements.			

\*Note: Provide explanation for "No" responses.

Project Title	<u>-                                      </u>				
Reviewer's Signature:	60% 100%	Date:			
Review	<u>Item</u>		Yes	* <u>No</u>	<u>N/A</u>
<u>Structural</u>					
15. Pile loa	d tests are specified as required in the basis of design.				
type sel	16. The <b>foundation conditions</b> are accurately described and the foundation type selection is based on the <b>geotechnical report</b> . Confirm that preparer of geotechnical report has reviewed the plans and specs.				
-	sed or raised slabs indicated on the architectural drawing ed on the structural sheets.	s are			
18. Expans	sion joint locations coordinated against architectural.				

Proje	ect Title:				
		Date:			
	Review Item		<u>Yes</u>	* <u>No</u>	<u>N/A</u>
Mech	nanical				
1.	<b>Plumbing design</b> is in compliance with IAPMO, Uniform Plumbin Code and DM-3.01.	ng			
2.	Pipe and duct concealment spaces, furring, or chases adequatel sized.	У			
3.	Ductwork sizes are indicated.				
4.	<b>Mechanical room</b> is adequately sized and safe for equipment maintenance.				
5.	Adequate <b>ceiling height</b> exists at worst case duct intersection.				
6.	<b>Dampers</b> are indicated at smoke and fire walls.				
7.	The basis for <b>mechanical equipment</b> capacity is proper.				
8.	Interface between existing and new HVAC control systems show	vn.			
9.	<b>Cold, hot water, storm/sanitary drainage and vents</b> are sized in accordance with the fixture unit method.				
10.	There is adequate <b>street water pressure</b> or a <b>pressure booster sy</b> has been provided.	stem			
11.	<b>Zone pressure reducing stations</b> have been provided? (If water pressure at the fixture exceeds 50 PSIG.)				
12.	Water hammer arrestors are provided for quick closing valves. on identified drawings to prevent conflict with specifications.	Size			
13.	Approved <b>backflow prevention devices</b> are provided between croconnections of potable and non-potable water systems.	oss-			
14.	Water piping velocity shall not exceed 10 fps.				
15.	Water temperature is in compliance with current NAVFAC guid	elines.			
16.	Appropriate <b>HW generation system</b> has been selected based on expected demand.				

Proje	ect Title:				
	Reviewer's 60% Date:				
	Review	<u>(tem</u>	<u>Yes</u>	* <u>No</u>	N/A
Mech	nanical				
17.	HW cir	culating system is required.			
18.	assumpt	load calculations are appropriate of criteria for selected, design ions, and design methodology used (particularly assumed and indoor design conditions).			
19.		conditioned spaces 8,000 SF and larger, load and energy ions have been performed using an extensive hourly dynamic.			
20.	A/C sys	tem will operate properly under minimum load situation.			
21.	Verify t	hat an appropriate type of <b>ventilation</b> fan is selected.			
22.		ial ventilation design including calculations is in accordance industrial ventilation manual.			
23.		ial ventilation design has been reviewed by EGMEDCEN Industrial Hygiene Branch.			
24.	_	ver plant net continuous KW capacity meets the required at the specific site elevation and temperature.			
25.	includes	<b>generator</b> selected for prime power, and the specification a compensatory damages clause for excessive fuel consumption bid evaluation includes price adjustments for fuel consumption.			

Proje	ect Title:				
		Date: Date:			
]	Review Item		Yes	* <u>No</u>	<u>N/A</u>
Elect	<u>rical</u>				
1.	<b>Electrical characteristics</b> , such as primary and secondary voltages number of phases, and available fault current between one line diag and equipment specified.				
2.	Equipment interrupting ratings with revised short circuit calcula	itions.			
3.	Panelboard and equipment voltage ratings are consistent with distribution scheme.				
4.	Transformer capacity verified with load calculations.				
5.	All <b>lighting, power, and equipment loads</b> have been connected.				
6.	Voltage drop, lighting, and short circuit calculations are correct	·•			
7.	<b>Technical and utility loads</b> are required to be fed from separate befor communication-electronic facilities.	uses			
8.	Electrical characteristics and ratings of mechanical and utility required to be fed from separate buses.	loads			
9.	New load requirements coordinated with the proper utility agency	<b>y</b> .			
10.	Elementary control diagrams are correct.				
11.	<b>Sufficient working space</b> is provided around each <b>engine generate</b> and within the engine generator room for power plants.	tor			
12.	Switchgear rooms have sufficient working space and have suffic space for expansion.	ient			
13.	Provision for future (PFB, spares) in <b>panels and switchboards</b> .				
14.	Grounding system fully identified.				
15.	<b>Telephone system</b> provided is adequate for the facility.				
16.	Telephone requirements coordinated with the proper telephone as	gency.			
17.	LAN system provided is adequate for the facility.				

\*Note: Provide explanation for "No" responses.

Project Title:					
Reviewer's Signature:	60% 100%	Date:			
Review	<u>Item</u>		Yes	* <u>No</u>	<u>N/A</u>
Electrical					
18. <b>New un</b>	derground ductline system has adequate spares.				
	ic protection is provided for buried metallic fuel tanks or so or for submerged steel waterfront.				
20. Cathod	ic protection system provided is adequate for design.				
21. Cable T	<b>EV system</b> provided is adequate for the facility.				
22. Cable T	TV requirements coordinated with proper Cable TV agen	ıcy.			
23. <b>IDS sys</b>	<b>tem</b> provided is adequate for the facility.				
24. <b>IDS</b> sys	tem requirements coordinated with proper agency.				

Proje	ect Title:				
		Date:			
	Review Item		Yes	* <u>No</u>	<u>N/A</u>
Site I	Plan and Civil Sheets				
1.	Review to determine that the <b>systems</b> (water, sewer, drainage, roadways, etc.) will, when constructed, perform satisfactorily in performing the intended function. This is an overall look at the <b>systems</b> , not at the various components which make up the system by themselves are satisfactory yet not work as part of a system.	which			
2.	Soil exploration and soil tests were performed.				
3.	Facility location and elevations are adequately tied down.				
4.	Adequate <b>vertical and horizontal controls</b> have been provided.				
5.	Finish grades provide adequate slope for surface runoff.				
6.	Adequate <b>traffic control devices</b> and <b>information guide signs</b> provided.				
7.	Connections to water, sewer, and drainage systems have been provided.				
8.	<b>Drainage system</b> is adequate and conforms to the design analysis direction of surface drainage beyond the projects limits is acceptable				
9.	Water supply system, capacity and conditions including the supply/source are adequate.				
10.	Domestic and industrial, water supply demands are properly calc	ulated.			
11.	Water supply contamination influences have been considered as have been mitigated including providing backflow preventers and adequate separation from sewer lines.	nd			
12.	<b>Sewage system</b> capacity and load conditions are adequate for the facility.				
13.	Design population, sewage flows, and degree of treatment is pro-	oper.			
14.	Appropriate <b>type and volume of traffic</b> , controlling <b>wheel loads</b> a <b>configurations</b> were considered for pavement design.	and			
15.	Traffic safety, airfield clearance, and other standards are met.				

\*Note: Provide explanation for "No" responses.

Project '	Title:				
	er's 60% re: 100%	Date:			
Rev	view Item		Yes	* <u>No</u>	<u>N/A</u>
Site Plan	and Civil Sheets				
16. <b>P</b> a	aving material selection is in compliance with criteria.				
17. <b>E</b> z	xisting paving indicated or identified.				
	dicated access roads, haul routes, borrow areas, disposal sites orage areas are acceptable.	and			
19. <b>St</b>	tation security requirements adequately addressed.				
	rocedures dealing with <b>use of station facilities and utilities</b> adecentified and covered.	luately			

Proj	ect Title:				
	iewer's	60% Date: 100% Date:			
	Review	<u>Item</u>	<u>Yes</u>	* <u>No</u>	N/A
Spec	ifications				
Gene	<u>eral</u>				
1.	Bidding	g Information Sheet corresponds to bid item.			
2.		cations are based on <b>latest NFGS</b> listed in SPECSINTACT Table ents of CCB.			
3.	storage	lentified in specifications such "as shown" and "as indicated" for areas, borrow areas, temporary buildings, etc. have been ated with drawings.			
4.	Specific drawin	cations are in conformance with the basis of design and gs.			
5.	for use	Information Form for 100% and Final Submittals completed by Contracts Office (R110). Refer to PACNAVFACENGCOM ide, P-74, Section 8, "Specifications" for a sample copy.			
Secti	ion 01110	, Summary of Work			
1.		ct completion time is reasonable based on such items as long terials/equipment, location of project site, and size of project.			
2.	Constru	uction categories listed for MILCON projects.			
3.	_	raph requirements discussed with ROICC or Activity and ph included/deleted as appropriate.			
Secti	ion 01450	Quality Control			
1.	Admini	istrative items are identified as Government approved.			
2.	U.S. reg	gistered fire protection engineer reviews <b>fire protection</b>			

Project Title:					
		Date:			
Signature: 1	00%	Date:			
Review Ite	<u>m</u>		Yes	* <u>No</u>	N/A
Specifications					
Section 01500, T	emporary Facilities and Controls				
	ty of utility services was discussed with activity/ROICC edited as appropriate.	and			
Section 01575, T	emporary Environmental Controls				
1. Requireme	nts for hazardous material clearly identified.				
dewatering	handling of <b>environmentally troublesome areas</b> such s, shoreline protection, petroleum contaminated soil, and cognizant environmental personnel.				
_	osal requirements for rubbish, debris, chemical waste as Guam projects incorporated.	and			
Section 01580, P	roject Identification				
1. Project sig	gn included for MILCON projects.				
	ite Demolition ngineering Control of Asbestos Containing Materials emoval and Disposal of Lead-Containing Paint				
containing	e disposition of hazardous items such as asbestos, mat lead, and lead paint with activity and cognizant personne health areas. Coordinate with Environmental section.	el in			
	arthwork for Structures and Pavements xcavation, Backfilling, and Compacting for Utilities				
1. Criteria fo	or bidding (hard material, mudrock, coral, etc.) is approp	oriate.			

\*Note: Provide explanation for "No" responses.

Proj	ect Title:					
	iewer's	60% 100%	Date:			
	Review	<u>tem</u>		<u>Yes</u>	* <u>No</u>	<u>N/A</u>
Cost	Engineer	ng				
1.	_	statement certifying final estimate is based on final dreifications provided.	awings			
2.	number.	from suppliers and manufacturers, with name, teleph and date, for items greater than 10% of the constructes provided.				
3.		ve on the factors and sources of cost data used in develor provided.	eloping			
4	Rid iter	a costs identified separately				

Proj	ect Title:					
	iewer's ature:		Date:			
	Review 1	<u>Item</u>		Yes	* <u>No</u>	<u>N/A</u>
Fire	Protection	<u>1</u>				
1.		omatic sprinkler system of CO2 under floor. Flooding Sy l and properly shown in each room.	stem			
2.	Automa	atic/manual fire alarm system requirements indicated.				
3.	Fire sep	paration requirements and fixed walls been considered.				
4.	Exits ac	lequate in number and properly spaced.				
5.	Water s	supplies (quantity and pressure) adequate.				
6.	Fire acc	cess roads adequate.				
7.		iercing fire walls in wall sleeves are packed with proper s between the pipe and sleeve space.				
8.		ceiling space separators/draft stops, attic/false ceiling fire				

Proj	ect Title:		
	ivity/Location:		
Rev	iewer's Signature: Date:		
Rev	iew Item Chk	N/A	
1.	Preliminary Review		
a.	Compare <u>specifications and drawing index</u> to verify all drawing sheets are accounted for and subtitles are same.		
b.	Brief through the set of plans (spending no more than one minute/sheet) to become familiar with the project.		
2.	Civil Plan. Verify:		
a.	Property line dimensions on site plan against architectural.		
b.	Building is located behind setback lines.		
c.	Existing and proposed grades are shown and identified.		
d.	<u>Limits of construction, clearing, grading, sodding, grass or mulch</u> are shown and are consistent with other disciplines.		
e.	Existing and new work is clearly identified on site plan.		
f.	<u>Utility lines</u> (underground power, telephone, water, sewer, gas, storm drain, fuel lines, grease traps and fuel tanks).		
g.	Existing utility lines capable of handling new loads.		
h.	Existing power/telephone poles, pole guys, street signs, drainage inlets, valve boxes, manhole castings and other structures do not interfere with new driveways, sidewalks, or other site improvements.		
i.	Fire hydrants and street light poles do not conflict with other aboveground items.		
j.	Profile sheets show other <u>underground utilities</u> and avoid conflicts.		
k.	Horizontal distances between drainage structures and manholes match scaled dimensions and stated dimensions on both plan and profile sheets.		
1.	Provisions have been included for <u>adjusting valve box and manhole castings</u> (sewer, power, telephone, drainage) to match final or finish grade of pavement, swales, or sidewalks.		

Proj	ect Title:			
	vity/Location:			
Rev	iewer's Signature:	Date:		
Rev	iew Item	<u>Chk</u>	N/A	
3.	Structural Plan. Verify:			
a.	Sections are properly labeled.			
b.	<u>Drawing notes</u> do not conflict with specifications.			
c.	<u>Dimensions</u> match architectural.			
d.	Perimeter slab matches with architectural.			
e.	Depressed or raised slabs are indicated and it matches architect	ural.		
f.	Slab elevations with civil and architectural.			
g.	Foundation piers are identified and sized on schedule or plan.			
h.	Foundation beams are identified and sized on schedule or plan.			
i.	Column lines with architectural plan.			
j.	Column locations are the same with architectural.			
k.	Column lines and columns on roof framing plan with foundation	n plan.		
1.	Perimeter roof line with architectural roof plan.			
m.	<u>Columns, floor beams and roof beams</u> are listed in column and schedules.	beam		
n.	Length of all columns in column schedule. Match the length sh section and the elevations shown on plans.	nown in		
0.	Expansion joint locations with architectural.			

Proj	ect Title:		
	vity/Location:		
Kev:	iewer's Signature: Date:		
Rev	iew Item Chk	N/A	
4.	Architectural Plan. Verify:		
a.	Existing and new work is clearly identified on site plan.		
b.	Columns, bearing walls and overall building dimensions match with structural.		
c.	<u>Building elevations</u> with floor plans. Check in particular <u>roof lines</u> , <u>window and door openings</u> , and expansion joints.		
d.	<u>Building sections</u> with elevations and plans. Check roof lines, windows and door openings, and expansion joints.		
e.	Building wall sections with structural building sections.		
f.	Openings for windows and doors match structural.		
g.	Expansion joints are continuous throughout the building.		
h.	<u>Large scale floor plans</u> with small scale floor plans.		
i.	Reflected ceiling plan with architectural floor plan to ensure no variance with rooms. Check ceiling materials with finish schedule, check light fixture layout with electrical, check ceiling diffusers/registers with mechanical, check soffits and location of vents.		
j.	Room finish schedule information including room numbers, names of rooms, finishes and ceiling heights. Look for omissions, duplications, and inconsistencies.		
k.	<u>Door schedule</u> information including sizes, types, labels, etc. Look for omissions, duplications, and inconsistencies.		
1.	Fire rated walls match with mechanical plans.		
m.	<u>Cabinets</u> will fit.		
n.	<u>Dimensions</u> .		

Proj	ect Title:		
	vity/Location:		
Rev	iewer's Signature: Date:		
Rev	iew Item Chk	N/A	
5.	Mechanical and Plumbing Plan. Verify:		
a.	Notes are referenced and clearly stated.		
b.	Sections are identical to architectural and structural.		
c.	New electrical, gas, water, sewer, and other utility lines are connected to existing utility lines and the same type of lines.		
d.	Plumbing fixture locations with architectural.		
e.	<u>Plumbing fixtures</u> with fixture schedule and specs.		
f.	Storm drain system with architectural roof plans.		
g.	Size of pipes and that drains are connected.		
h.	<u>Pipes</u> are sized sensibly and <u>drains</u> are connected and do not interfere with foundations.		
i.	Sanitary drainage pipe sizes and fixtures are connected.		
j.	Wall chases are provided on architectural to conceal vertical piping as intended.		
k.	HVAC floor plans with architectural.		
1.	Sprinkler heads are provided in all rooms.		
m.	Adequate <u>ceiling height</u> exists at worst cast duct intersection or at largest beam.		
n.	<u>Structural support</u> required for <u>mechanical equipment</u> are indicated on structural drawings.		
0.	<u>Dampers</u> are indicated at smoke and fire walls.		
p.	<u>Diffusers</u> with architectural reflected ceiling plan.		
q.	Roof penetration (ducts, fans, and other utilities) are indicated on roof plans.		
r.	<u>Ductwork</u> is sized.		

Proj	ect Title:			
Acti	ivity/Location:			
		Date:		
Rev	Review Item Chk		N/A	
5.	Mechanical and Plumbing Plan (cont'd). Verify:			
s.	Air conditioning units, heaters, and exhaust fans with architectural plans. Attention to occupancy of rooms below HVAC roof or ceiling mounted units.			
t.	Air conditioning units, heaters, and exhaust fans with mechanical schedule.			
u.	Mechanical equipment will fit in spaces allocated and there is room maintenance (such as removing filters or tubes).	n for		
v.	<u>Horsepower ratings</u> for major pieces of equipment match on mecha electrical drawings and specifications.	nical,		

Pro	ject Title:			
	ivity/Location:			
Rev	viewer's Signature: Dat	.e:		
Rev	view Item C	<u>Chk</u>	N/A	
6.	Electrical Plan. Verify:			
a.	Notes are referenced and clearly stated.			
b.	Structural supports are provided for electrical equipment on roof.			
c.	<u>Electrical floor plans</u> are identical to architectural and mechanical. Check that the location of <u>floor mounted equipment</u> is consistent betwee disciplines.	een		
d.	The location of <u>light fixtures</u> matches architectural and reflected ceiling plan and that light fixtures do not conflict with the structure or mechanical HVAC system.	g		
e.	<u>Major pieces of equipment</u> have electrical connections and phases and voltages are consistent with other discipline schedules.			
f.	Locations of <u>panel boards</u> are consistent with architectural, mechanical and plumbing floor plans and the panel boards are indicated on the electrical riser diagram.	۱,		
g.	Sufficient space for <u>electrical panels</u> to fit.			
h.	Electrical panels are not recessed in fire rated walls.			
i.	Exterior electrical equipment locations with site paving, grading, and landscaping plans.			
j.	Locations of <u>electrical conduit runs</u> , <u>floor trenches</u> , <u>and openings</u> with structural plans.			
k.	Electrical controls for mechanical equipment.			
1.	Existing communications lines are suitable for control system use.			
7.	Kitchen/Dietary Plan. Verify:			
a.	Equipment layout matches architectural plans.			
b.	Equipment is connected to utility systems.			

Proj	ect Title:			
	ivity/Location:			
Rev	iewer's Signature: Dat	e:		
Rev	Review Item Chk		N/A	
8.	Specification Check. Verify:			
a.	Sections are indicated in the index.			
b.	Bid items are explicitly stated and identified throughout the drawings.			
c.	Phasing of construction is consistent with drawings.			
d.	Architectural finish schedule with specification index.			
e.	Major items or equipment with contract drawings.			
f.	Items specified "as indicated" or "where indicated" are in fact indicated on contract drawings.	d		
g.	Thickness of materials and quantities of materials with drawings.			

#### PACDIV REVIEW COMMENTS

PH-PACDIV-11012/4 (Rev. 4-97) DATE PAGE **DD FORM 1391** DESIGN PROJECT TITLE **CRITERIA** PRELIM PLANS FNL SPECS & **PLNS** NAME/PHONE NO. **GOVERNMENT REVIEWERS** NAME/PHONE NO. <u>A-E</u> ARCHITECTURAL ARCHITECTURAL STRUCTURAL STRUCTURAL **MECHANICAL MECHANICAL** ELECTRICAL **ELECTRICAL CIVIL CIVIL** FIRE PROTECTION FIRE PROTECTION SPECS AND EST SPECS AND EST **OTHER OTHER** DWG NO. OR **ITEM COMMENTS** ACTION SPECS PARA NO. NO.